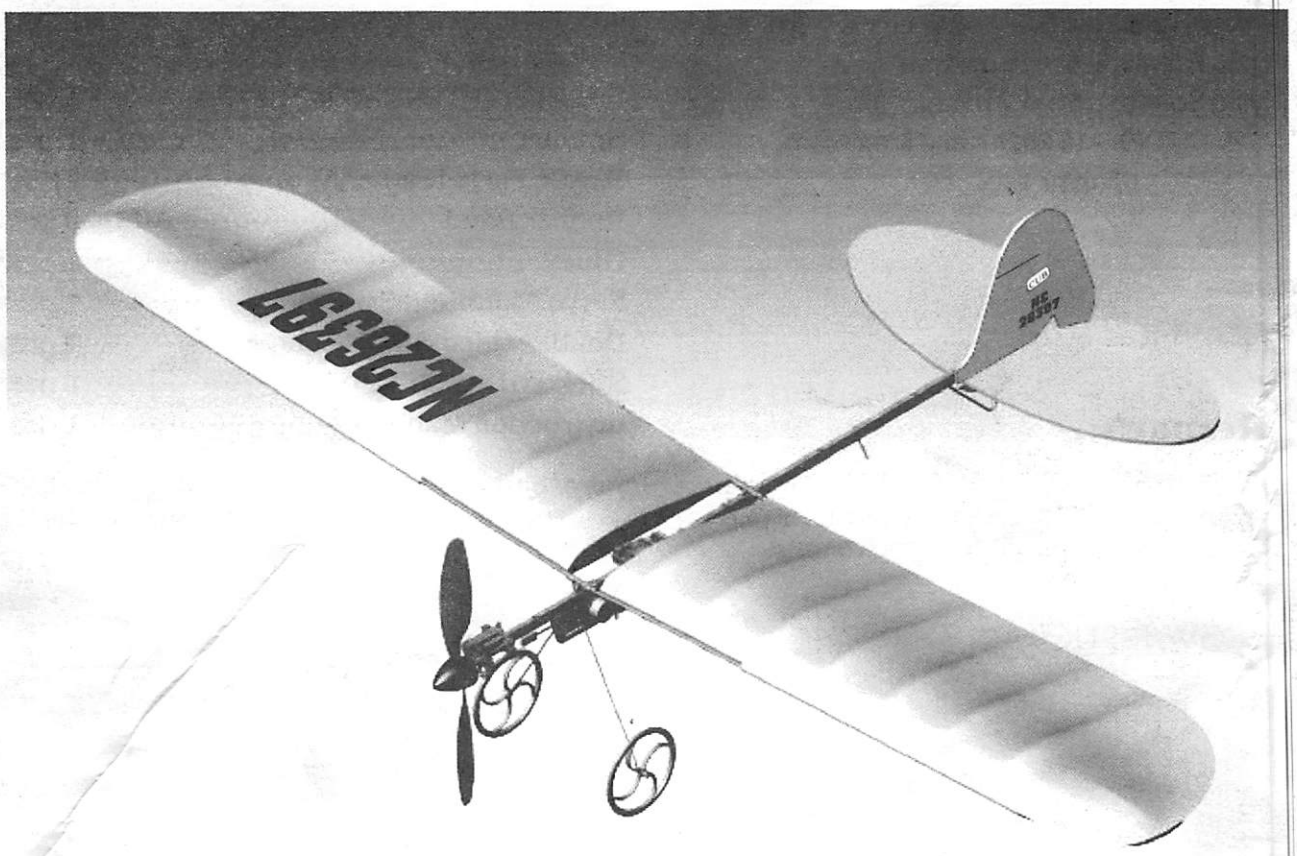
PICO INDOOR J3-S

INDOOR R/C AIRPLANE
<For Beginners>

Thank you for choosing the GWS Indoor R/C Airplane "PICO INDOOR J3-S". This airplane has been especially designed for both indoor and outdoor slow flying and is especially suitable for novice R/C fliers because of minimal assembly time and ultra-slow, easy flying characteristics.



Please read these instructions carefully and thoroughly before assembly in order to achieve safe operation with maximum performance from your PICO INDOOR J3-S airplane.

GWS
http://www.gws.com.tw
E-mail:export@gws.com.tw

SPECIFICATIONS

Length: 675 mm (26.6 in.)
Wing Span: 1050 mm (41.3 in.)
Wing Area: 16.8 dm^2 (260 oz/ sq. in.)
Wing Loading: 11.1g/dm^2 (3.6 oz/sq.ft.)
Flying Weight: 185~200g (6.53~7.05 oz.)
*Power: IPS-STD-B <for S TYPE>
IPS-DX-A <for SD TYPE>
*Propeller: 23 X 12cm (09" X 4.7")<for S TYPE>
24.5 X 12cm (10" X 4.7")<for SD TYPE>
Radio Required: 2~3-channel with 2 sub-micro servos and one electronic speed controller or auto cut-off (*1)
Battery Required: 6.0~7.2V/110~270mAh
Flying Ruration: 5~15 minutes
Flying Speed: 2.5~4.2 m/sec. (8.5~14 ft/sec.) (9~15 km/hr. and Maximum 18km/hr.).

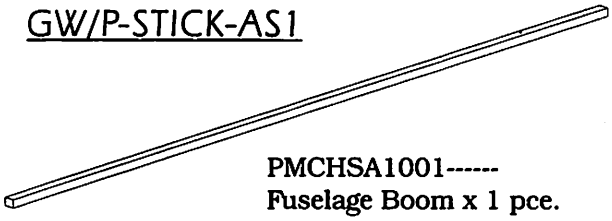
CONTENTS OF KIT (PART LIST)

Fuselage Boom	1 pce.
Push Rod	2 pcs.
Wing Right	1 pce
Wing Left	1 pce
Horizontal Stabilizer	1 pce
Vertical Fin	1 pce
Plastic Parts Frame "B"	1 set
Bamboo Stick (3 x 160 mm)	2 pcs.
Bamboo Stick (3 x 125 mm)	2 pcs.
Main Landing Gear	1 pce.
Ultra-light Wheel Rim (60 mm dia.)	2 pcs.
Rubber Tire (62 mm dia.)	2 pcs.
Tail Skid	1 pce.
Indoor Power Unit (IPS-STD-B)	1 set
Propeller (PTPROA0947)	1 pce.
Spinner	1 pce.
Plastic Parts Frame "A"	1 set
Rubber Band	8 pcs.
Glue	1 pce.
Servo Mounting Screws	4 pcs.
Double-sided Sponge Tape	4 pcs.
Sticker (Decal)	1 pce.
Instruction Manual	1 pce.

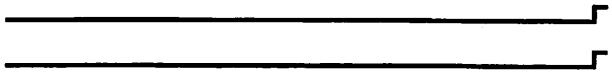
Remark:

Please note that some plastic parts on the frames are not used for this airplane as these frames A and B are designed for a use of other airplanes as well. Please consult the instruction manual for more details.

GW/P-STICK-AS1

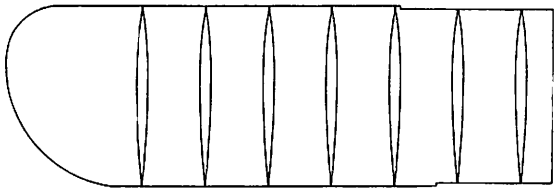


PMCHSA1001------
Fuselage Boom x 1 pce.

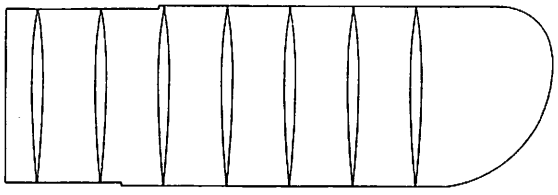


PTMEWA1001------
Push Rod x 2 pcs.

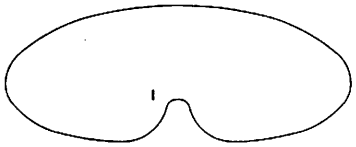
GW/P-J3-AS2



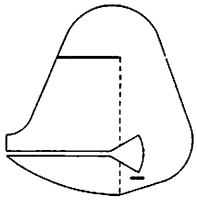
PHWIN-1002--Y-L-
Wing (Left) x 1pce.



PHWIN-1002--Y-R-
Wing(Right) x 1pce.

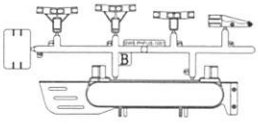


PHWIN-1002--Y-H-
Horizontal Stabilizer x 1pce

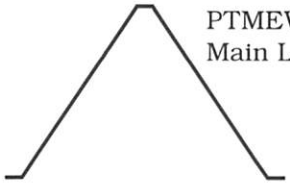


PHWIN-1002--Y-V-
Vertical Fin x 1 pce.

GW/P-STICK-AS3

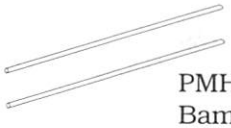


PHFUS-1001------
Plastic Parts Frame"B" x 1 set



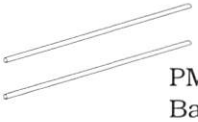
PTMEWA1002----M-
Main Landing Gear X 1 pce.

PTMEWA1002----T-
Tail Skid X 1 pce.

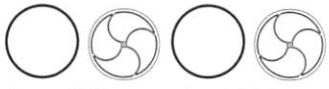


PXTPAF-6J-1409--
Servo Mounting Screws X 4 pcs.

PMHOD-10013R0160
Bamboo Stick (3 x 160 mm) X 2 pcs.

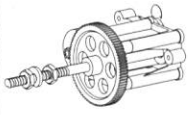


PMHOD-10023R0125
Bamboo Stick (3 x 125 mm) X 2 pcs.

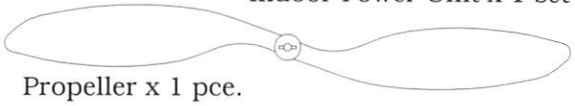


GW/WH01/65
Ultra-light Wheel Rim (60 mm dia.) X 2 pcs.
Rubber Tire (62 mm dia.) X 2 pcs.

GW/P-STICK-AS4A<for S TYPE>
GW/P-STICK-AS4B<for SD TYPE>



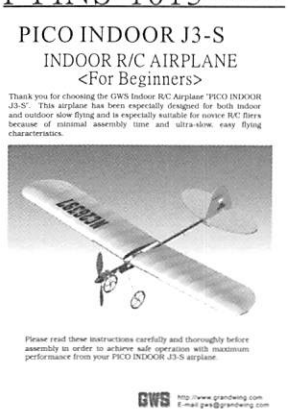
GW/IPS-STD-B<for S TYPE>
Indoor Power Unit x 1 set
GW/IPS-DX2BB-AX<for SD TYPE>
Indoor Power Unit x 1 set



Propeller x 1 pce.
GW/EP0947<for S TYPE>
* 6pcs per pack
GW/EP1047<for SD TYPE>
* 6pcs per pack

PHSPIR100125D
Spinner x 1 pce.

PYINS-1013------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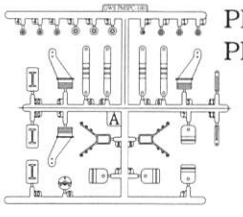
GWS

Instruction Manual
x 1 pce.

PYPOP-1002------

Sticker (Decal) x 1 pce.

GW/P-STICK-AS5



PMSPC-1001------
Plastic Parts Frame "A" x 1 set

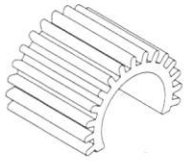
8SRBD-1001------
Rubber Band x 8 pcs.

8SADHP1001------
Glue x 1 pce.

8STAPS1001------
Double-sided Sponge Tape x 4 pcs.

OPTIONAL PART

For better performance and longer life of the motor used,
the heat sink is available as an optional item.

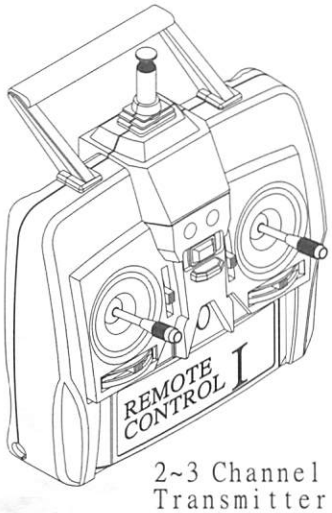


PTRAD-1012------
Heat Sink(for IPS)

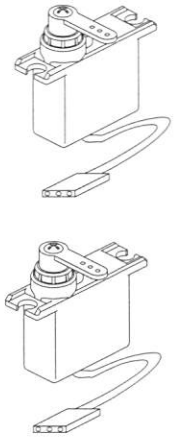
RADIO CONTROL SYSTEM

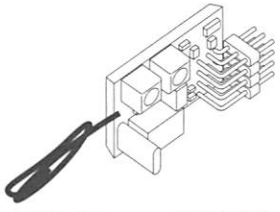
The following items and equipment are required to fly this airplane separately.

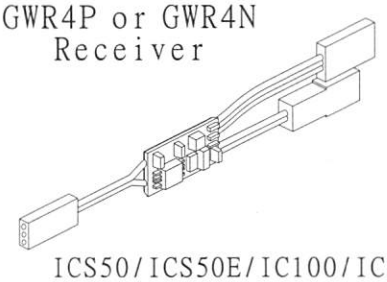
- Transmitter
- Receiver (GWS PICO Series or NARO Series Receiver recommended)
- Servo (GWS PICO Series Servos/GWS NARO Series Servos recommended)
- Electronic Speed Controller or Auto Cut-off (GWS ICS-50E, ICS-50, ICS-100 or IC-100 Speed Controller recommended)
- Ni-cad Battery Pack (6.0～7.2V/110～270mAh recommended)
- Charger (Quick or Normal Charger)



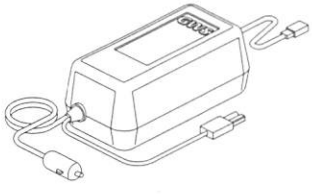
2~3 Channel Transmitter

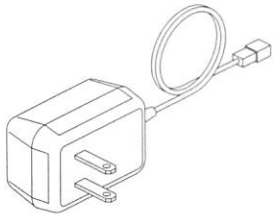

GWS PICO Series Servos (GWS NARO Series Servos)


GWR4P or GWR4N Receiver


ICS50/ICS50E/IC100/ICS100 Electronic Speed Controller

6.0~7.2V/110~270mAh Ni-cad Battery

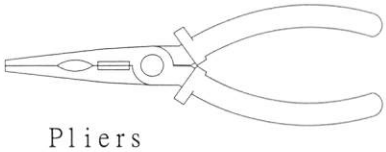

Quick Charger

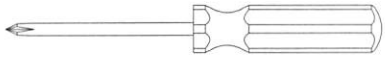

Normal Charger

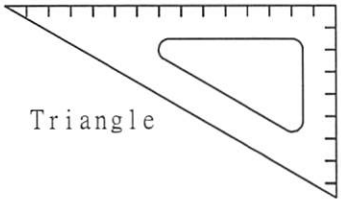
TOOLS

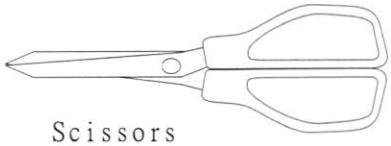
To assemble this airplane you need to prepare some tools.

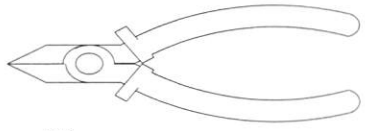
Cutter Knife


Pliers


Screwdriver


Triangle

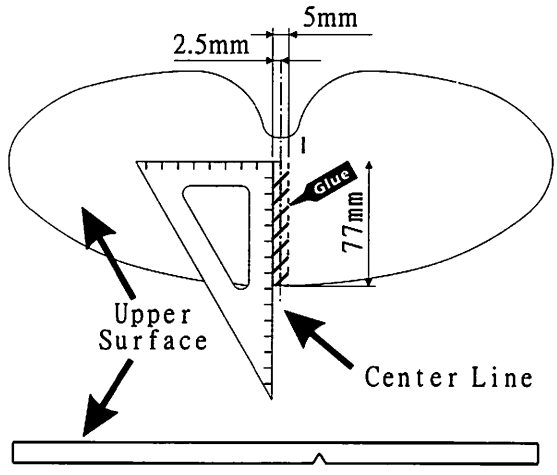

Scissors

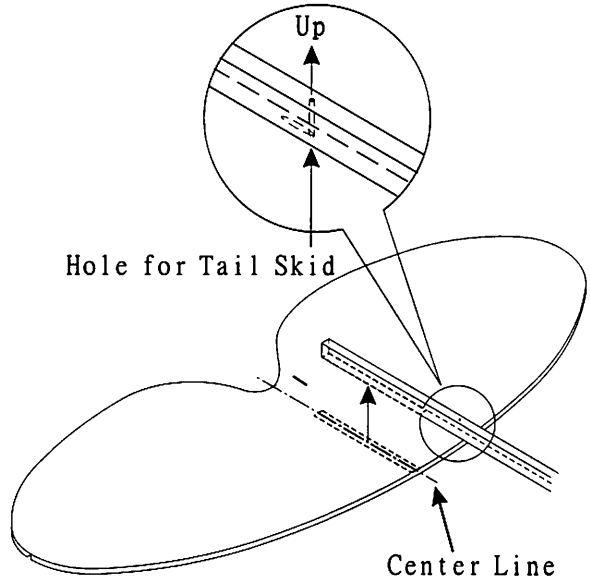

Nippers

ASSEMBLY

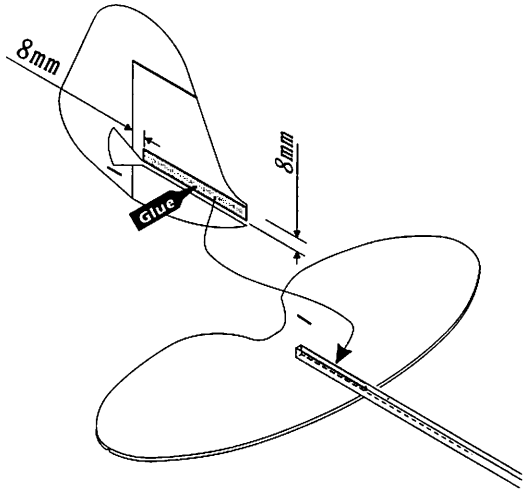
HORIZONTAL STABILIZER, VERTICAL FIN AND FUSELAGE BOOM

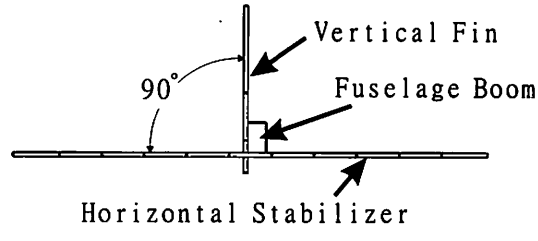
1. First of all, check if the fuselage boom is straight before starting an assembly. In case it is warped, spray the boom with water (or soak it for several seconds) and straighten it out by your hands. Then, dry the boom by a heat gun or leave it on the flat surface until it dries completely.
2. Use a triangle to determine the center of the horizontal stabilizer as shown. Apply glue as per the illustration (77mm-long x 5mm-wide). Then, glue the fuselage boom to the position indicated on the stabilizer upper surface. Make sure that the boom is securely glued to the stabilizer.

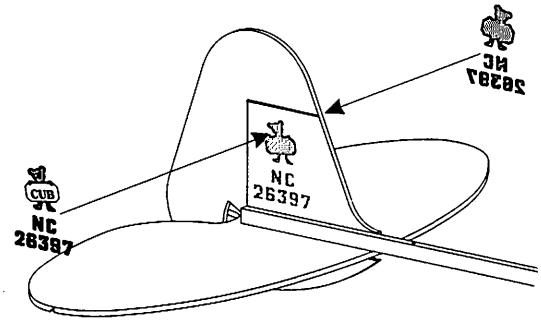




3. Apply glue to the indicated part and inside of slit of the vertical fin and glue it to the stabilizer and boom as shown. Make sure the fin is perpendicular to the stabilizer. Stick the decals onto the fin.





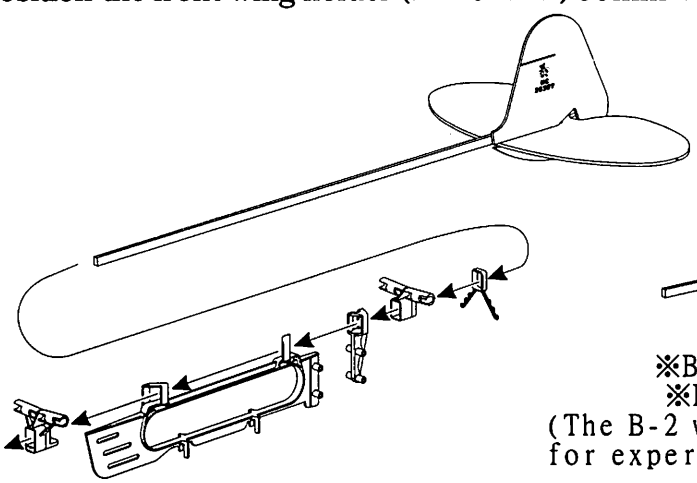


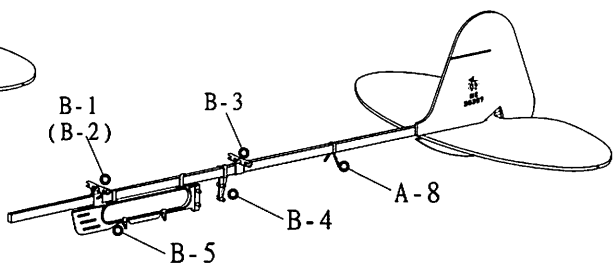
PLASTIC PARTS FRAME "A" AND "B"

1. Cut off only necessary parts from the frame as per the illustration. Each part is numbered. Please note that there are some parts included on the frame A and B, which are not used For this airplane.
2. Slide all plastic parts onto the boom as per the illustration. Please make sure that all parts are in order as indicated below.

Important!

Position the front wing holder (B-1 or B-2) 55mm back from the rear edge of the IPS.

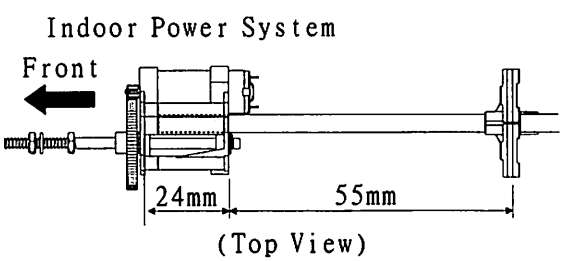


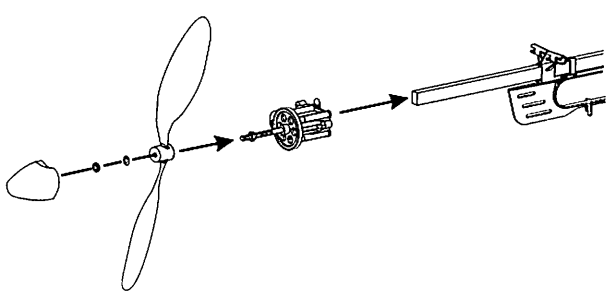


※B-1=For outdoor flying
※B-2=For Indoor flying
(The B-2 wing holder is recommended for experienced and advanced fliers only)

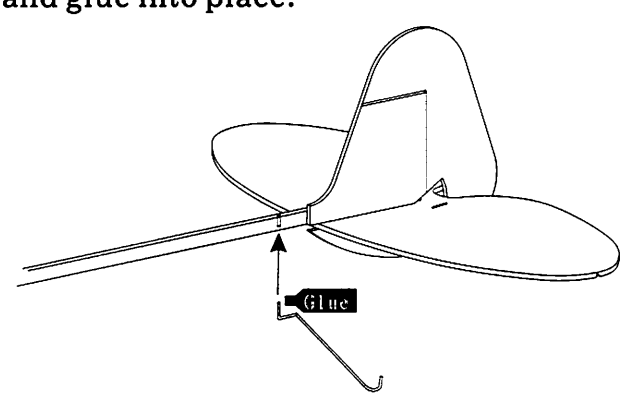
INDOOR POWER SYSTEM AND LANDING GEARS

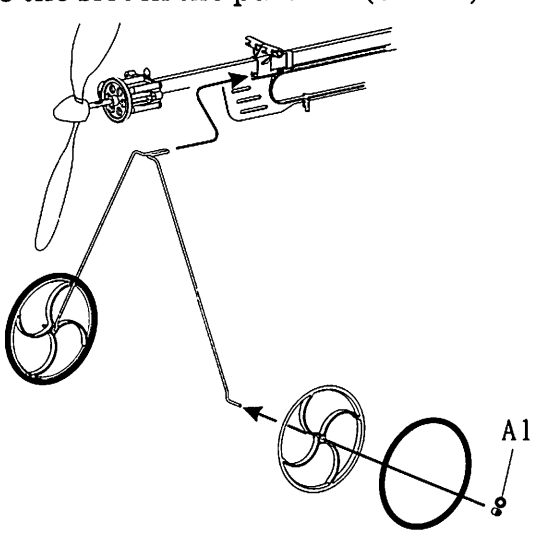
1. Insert the fuselage boom to the Indoor Power System (IPS). Make sure that the boom is pushed into the IPS by 24mm. Install the propeller and fix it firmly with the washer and nut, then push on spinner as shown.





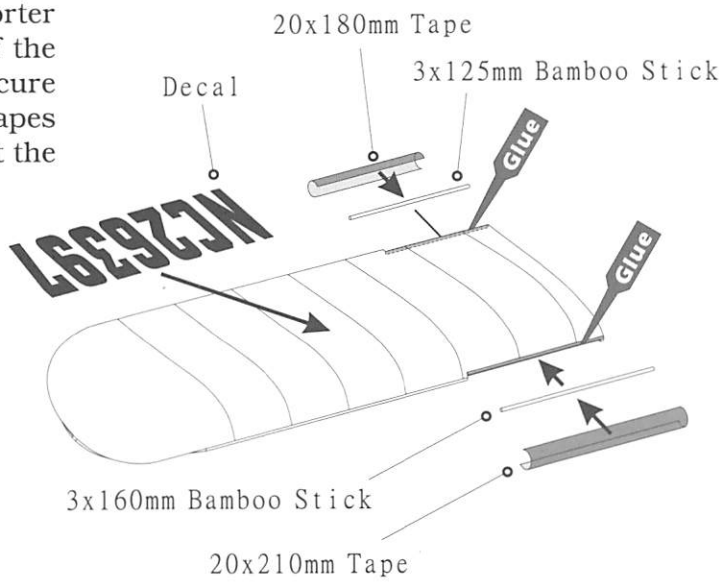
2. Carefully install the rubber tires on the grooves of the wheels and install the ultra-light wheels to the main landing gear, then push on the stoppers. Insert the assembled main landing gear into the slot in the part B-1 (or B-2)firmly. Also, insert the tail skid into the boom and glue into place.





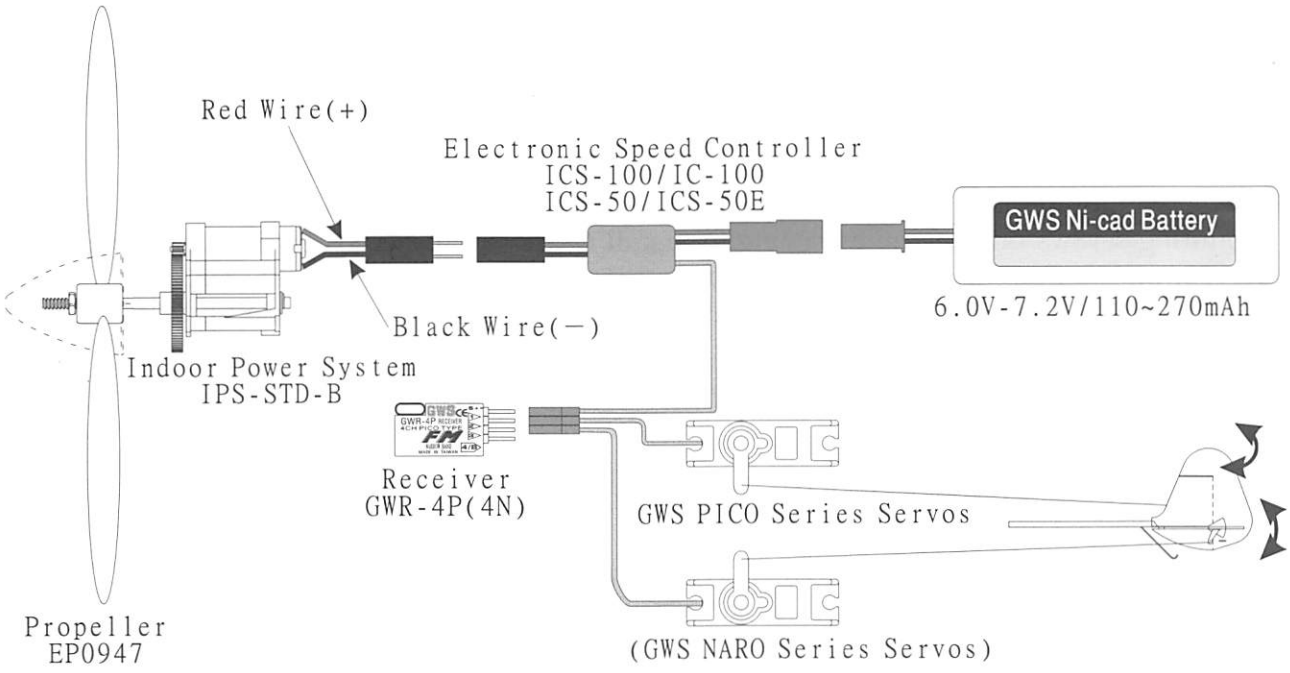
MAIN WINGS

Glue the bamboo sticks (3 x 160) to the leading edge (front edge) and the shorter sticks to the trailing edge (rear edge) of the right and left wings as shown below. Secure them with the supplied transparent tapes (20 x 210 mm/20 x 180 mm). Then, put the decals on the wings.



RADIO GEAR INSTALLATION

Wiring and Connection



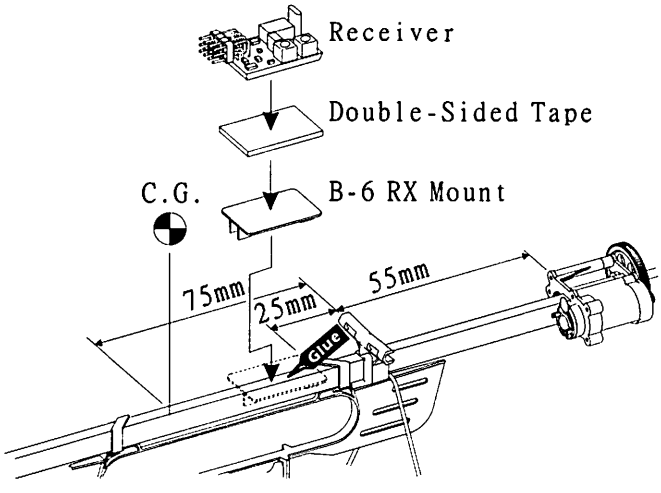
Connection for Receiver, Servos and Electronic Speed Controller

Connections for receiver, servos and speed controller are different according to the transmitter you are using. Please refer to the following chart for easy understanding.

	Futaba TX	JR TX	Sanwa(Airtronics)TX	Hi-tec TX
GWS RX 4/B	Rudder/Battery	Rudder/Battery	Rudder/Battery	Rudder/Battery
3	Throttle	Elevator	Elevator	Throttle
2	Elevator	Aileron	Aileron	Elevator
1	Aileron	Throttle	Throttle	Aileron

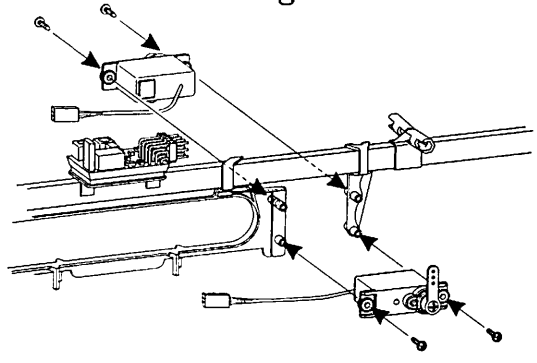
Receiver Mounting

Place the receiver mount (B-6) as shown and glue it to the fuselage boom securely. Then, mount your receiver using supplied double-sided sponge tape. Fix the antenna to the fuselage boom with tape securely and safely. Do not shorten the antenna or coil it as range will be reduced.



Servo Mounting

Mount 2 servos on the main frame precisely as shown and insert the screws through grommets and tighten until the grommets are slightly crushed for best shock absorption. Be aware of the mounting direction of the servos.

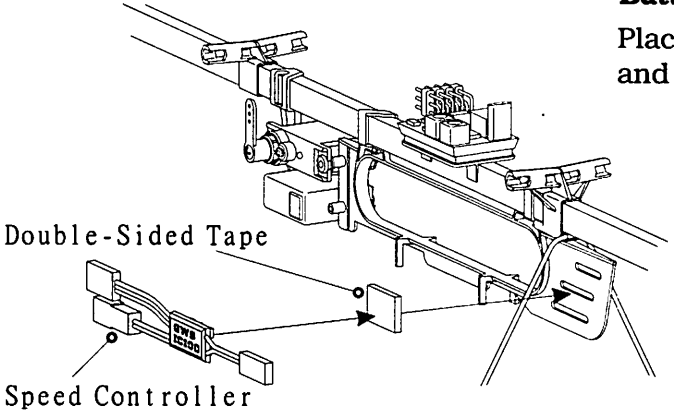


Warning!

The servo mounts for PICO INDOOR STICK-S airplane have been designed to use PICO servo mounting screws only. If you are going to install NARO series servos or other manufacturers' servos, please don't use the servo mounting screws supplied with the servos, which are too big and may destroy the servo mounts. For your convenience, 4 extra small mounting screws are included in this kit.

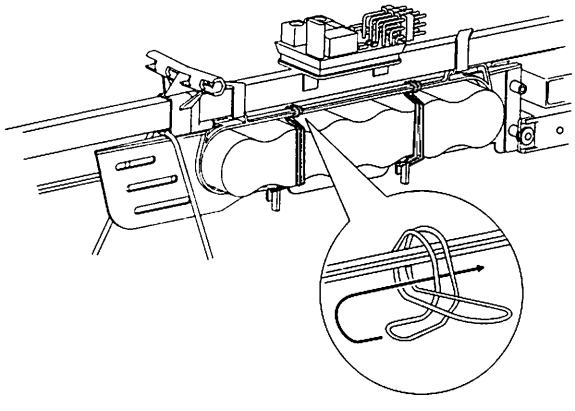
Speed Controller Mounting

Install the speed controller using the supplied double-sided sponge tape on the either side of the main frame.



Battery Pack Mounting

Place the battery pack inside of the main frame and secure it with the rubber bands firmly.

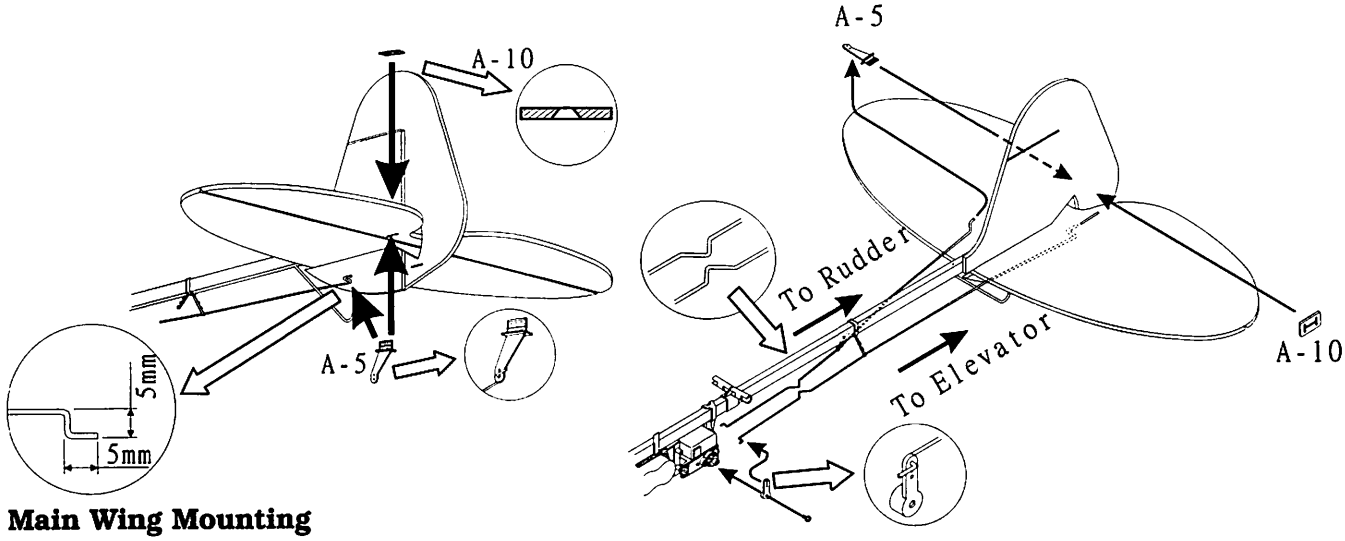


Warning!

Be sure to observe the correct polarity and integrity when connecting all radio gear. Make sure that wiring is not under strain. Before operating the system, please read the manufacturer's instruction manual for all equipment.

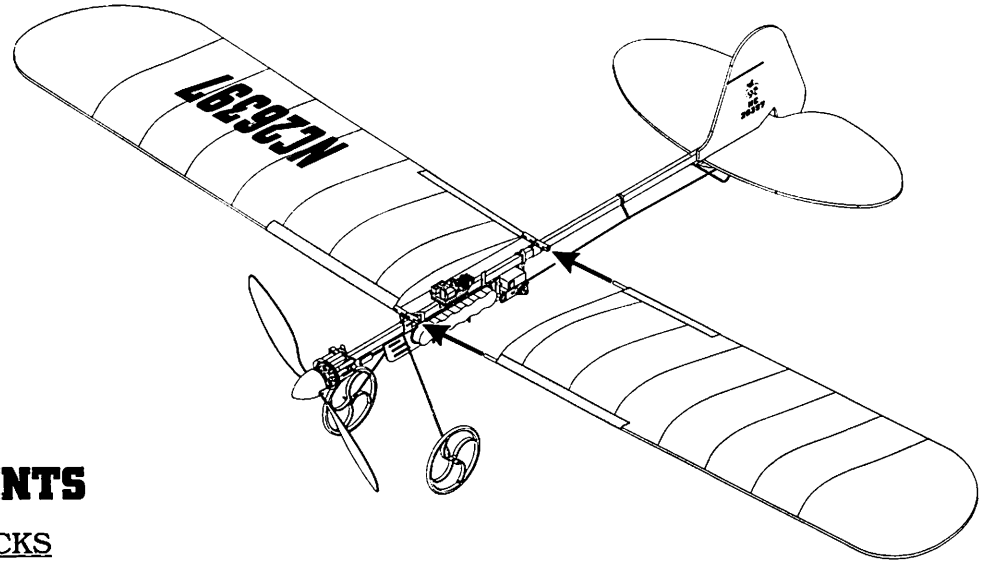
CONTROL LINKAGES

Insert the control horns into the slots on the stabilizer and the fin and fix them with the retainers. Bent the one end of the push rod (Z shape) and make a V shaped bend in the push rod as shown, then hook the push rods into the control horns temporarily. Holding the servos and the control surfaces in the neutral position, mark the position where the push rod passes the holes of the servo horns. Make a Z shaped bend in the marked ends and connect the rods to the servo horns.



Main Wing Mounting

Securely insert the main wing bamboo sticks to the plastic wing mounts as shown. If the bamboo sticks are too large for the mount holes , trim the sticks with a sand paper or a knife carefully.



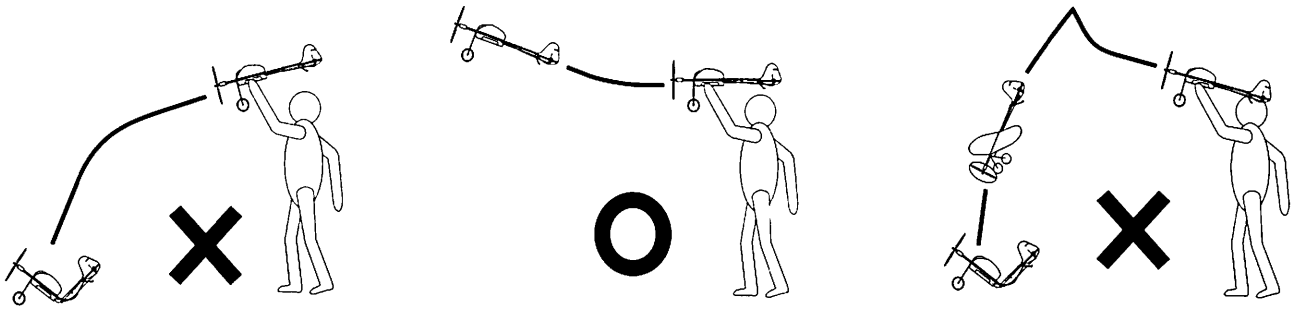
TIPS AND HINTS

PREFLIGHT CHECKS

- It is always recommended that you charge your transmitter and receiver batteries as well as a battery pack for the motor before attempting to fly your airplane.
- The Center of Gravity (the balancing point) is located 130mm back from the rear edge of the IPS. After all radio gear and the battery pack is installed, check the C.G. point of your airplane. If the balancing point is offset, move the wings forward or vice versa until you find the recommended balancing point.
- Check the radio gear and the linkages thoroughly on the ground and make sure that all the control surfaces are working properly and correctly before attempting to take off your airplane.
- We recommend that you should check the range of your radio before the first flight of the day.

FLIGHT

- Always turn on the receiver last after turning on the transmitter, and shut off the receiver first before turning off the transmitter.
- You can take off your airplane from the smooth surface ground, normally 2~3 meters for run and take off.
- If you are hand-launching your model, move the throttle stick up fully and see if the motor is running at the maximum rpm. Then, throw your model to the air horizontally as shown and apply up elevator as model climbs at a shallow angle. If you launch you airplane at a steep angle, upward or downward, it may result in a crash of your model.



CAUTION

- If you are only beginner for the radio control model flying, do not attempt to fly your model without any assistance or advice from advanced and expert fliers.
- Do not fly close to buildings, electric power lines, or roads. Do not fly near other people who are not aware of what you are doing.

NEVER FLY OVER PEOPLES' HEADS OR CARS.

- Fly on a calm day. Gusty winds will make it hard for you until you learn to control your aircraft well. Turbulence caused by wind blowing over near by trees and buildings will make it very difficult for you to fly. Pick an open area and wait until the wind is calm.
- If you are going to attempt to fly your airplane in the indoor arena, closer attention and more safety preparation must be made in order to avoid any possible casualties or damage to property.
- If you are flying at a field with other RC modelers, **DO NOT** turn on your transmitter until you are certain that no one else is using your channel.

LIMITED WARRANTY

- Your new GWS PICO INDOOR STICK-S airplane kit is warranted against defects in material and workmanship.
- This warranty does not apply to any component parts, which have been improperly installed, handled, abused, damaged, modified and used.
- **WARNING**:If you are a beginner to R/C model flight then we strongly recommend you seek advice from your supplier and local model flying club before attempting to fly your model.

  This model is not a toy and must be assembled and used responsibly in order for successful fight to be achieved.

  Improper use of this model may lead to injury or damage to persons or property. GWS and their distributors will not accept any responsibility for any injury or damage arising from the improper use of this model.

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